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10/657,492	09/08/2003	Bradley Richard Rec	03002.1000	2673
35856	7590	06/22/2007		
SMITH FROHWEIN TEMPEL GREENLEE BLAHA, LLC			EXAMINER	
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ATLANTA, GA 30346			ART UNIT	PAPER NUMBER
			2616	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/657,492

Applicant(s)

REE ET AL.

Examiner

Man Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-13,18-20,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 2-4,14-17 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/8/03.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

1. The application of Ree et al. for a "Client-server architecture for the delivery of broadband services" filed 09/08/2003 has been examined. Claims 1-23 are pending in the present application.
2. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks <sup>TM</sup>, and other legal symbols @, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

***Drawings***

3. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC ' 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites limitation "the application and removal of network stack..." in line 22,

Claim 2 recites limitation " the application and removal of network stack..." in line 5,

Claim 19 recites limitation "the processing" in line 10,

Claim 23 recites limitation "the processing" in line 21,

There is insufficient antecedent basis for these limitations in the claims.

***Claim Rejections - 35 USC ' 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

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made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1, 5-13, 18-20, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art in view of Edmon et al. (US#2004/0042444).

With respect to claims 1 and 12, the Applicant's admitted prior art shown in Figs. 1 and 2 illustrated the modem and server for providing voice functionality over a packet network, according to the essential features of the claims. Fig. 1 of the Applicant's admitted prior art discloses a cable modem 200 for providing connection between a telephone unit 180 and a cable network 170. The telephone unit 180 interfaces to the modem 200 through a subscriber line interface (SLIC) 105, supplies the high voltage interface to an analog telephone 180 (the VoIP client) and provides a bi-directional analog voice stream to a codec (encoder/decoder) 110. Of course, the VoIP service could also be provided for digital type telephones by modifying the interface to the SLIC 105. The codec 110 contains an analog to digital (AD) and digital to analog (DA) converter that is used to provide a bi-directional digital data stream to a processor 130 (specification, page 3, lines 8 plus).

However, Applicant's admitted prior art does not disclose expressly the voice interface circuit for processing voice data packets without applying a network stack to the voice packets. In the same field of endeavor, Edmon et al. (US#2004/0042444) teaches in Fig. 4 a flow diagram illustrated an exemplary application logic for routing incoming VoIP communications through a media gateway (*of a voice signal initiated at the VoIP called party end-system 42*). Each voice packet routed through the IP network 40 is received by the media gateway 24 at

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step s410. The media gateway 24 reads the IP/UDP/RTP header at step s412 and maps the IP/UDP/RTP header to the BLES CID, using the CID assignment table, at step s414. Upon identifying the BLES CID, the media gateway 24 determines that the communication proceeds without a header. Therefore, at step s416, the media gateway 24 removes the IP/UDP/RTP header from the voice packet. The voice packet, without the header, is encapsulated in an AAL2 cell at step s418. At step s420, the AAL2 cell is routed through the ATM network 20 to the subscriber end-system 10 to complete the transmission. Like the VoIP called party end-system 42, the subscriber end-system 10 processes the voice packet to enhance the clarity and reliability of the communication. When the media gateway 24 determines that the BLES CID of the voice packet is not included in its CID assignment table as a VoIP application, the media gateway 24 does not assign an IP/UDP/RTP header. With no IP/UDP/RTP header, the voice packet can not be properly routed through the IP network 40. Therefore, the media gateway 24 converts the voice packet to TDM signaling and passes the TDM signaling through the IMT 32 to the switch 34 of the PSTN 30, as discussed above with respect to steps s216-s220 of Fig. 2, regardless of whether the called number has an associated IP address. The subscriber end-system 10 is then able to communicate with the PSTN called party terminal 36 ([0084]-[0088]).

Regarding claim 18, generally in a priority case, if a voice packet and a data packet are both received by the same router, the voice packet is given priority in order to avoid introducing latency to the voice packet delivery and reassembly, which means the voice packets will generally be given higher scheduling priority than the data packets.

Regarding claims 5-7, 13, the Applicant's admitted prior art shown in Figs. 1-2 including the SLIC and the CODEC are operable to interface to an analog, digital or wireless telephone.

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Regarding claims 8-11, the Applicant's admitted prior art shown in Figs. 1-2 wherein the communication network including coaxial, twisted pair, fiber and wireless technology.

With respect to claims 19, 20, 22, they are method claims corresponding to the apparatus claims as discussed in paragraph above. Therefore, claims 19, 20, 22 are analyzed and rejected as previously discussed with respect to claims above.

With respect to claim 23, it's a system claim corresponding to the apparatus and method claims as discussed in paragraph above. Therefore, claim 23 is analyzed and rejected as previously discussed with respect to claims above.

One skilled in the art would have recognized the need for effectively and efficiently process voice data packets in cable network, and would have applied Edmon's logic for routing incoming VoIP communications through a media gateway, and efficiently establishing voice over Internet protocol (IP) connections over a broadband network into the novel use of the cable modem in Applicant's admitted prior art. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Edmon's VoIP service through broadband network into Applicant's admitted prior art with the motivation being to provide a method and system for the delivery of broadband services.

***Allowable Subject Matter***

8. Claims 2-4, 14-17, 21 are objected to as being dependent upon the rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

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9. The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein the communication network interface is operable to: transmit and receive data packets over the communication network without the application and removal of network stack formatting; provide data packets received from the communication network to the local network interface; and provide data packets received from the local network interface to the communication network, as specifically recited in the claims.

10. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yang (US#6,788,675) discloses a method and apparatus for telecommunications using internet protocol.

Yang. (US#2004/0213204) discloses a system and method for enhancing a voice channel in VoIP.

Sharma et al. (US#7,082,141) discloses a computer implemented voice over data communication apparatus and method.

Yoon et al. (US#2004/0264488) discloses a apparatus and method for processing packets.



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Rabenko (US#7,106,723) discloses a delay reduction method for telephony systems with multiple packet generators.

Rabenko (US#2007/0070986) discloses a delay reduction method for telephony systems with multiple packet generators.

Read et al. (US#2002/0162116) discloses a VoIP telephony peripheral.

Furuta (US#2003/0145332) discloses a VoIP compliant cable modem.

Johnson et al. (US#6,765,901) discloses a TCP/IP/PPP modem.

Frankel et al. (US#6,075,784) discloses a system and method for communicating voice and data over local packet network.

Rosenberg (US#6,304,567) discloses methods and apparatus for providing voice communications through a packet network.

Thi et al. (US#2002/0061012) discloses cable modem with voice processing capability.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

06/18/2007.

  
**MANU J. PHAN**  
**PRIMARY EXAMINER**